

IN THE CLAIMS

1 (Withdrawn). A method comprising:
selectively severing a portion of a carbon nanotube; and
functionalizing the exposed portion of the nanotube.

2 (Withdrawn). The method of claim 1 including covering the carbon nanotube with a mask, removing a portion of the mask to expose a portion of said carbon nanotube and etching away the exposed portion of the carbon nanotube.

3 (Withdrawn). The method of claim 1 including aligning a plurality of carbon nanotubes, covering said plurality of carbon nanotubes with a mask, selectively exposing the selected portion of said aligned carbon nanotubes, and selectively etching away exposed portions of said nanotubes.

4 (Withdrawn). The method of claim 2 including using oxygen plasma etching to etch the exposed portion.

5 (Withdrawn). The method of claim 2 including covering said carbon nanotube with photoresist to act as a mask.

6 (Withdrawn). The method of claim 2 including covering said carbon nanotube with silicon dioxide to act as a mask.

7 (Withdrawn). The method of claim 1 including covering the carbon nanotube with a mask, exposing opposed end portions of said carbon nanotube, etching both end portions, and functionalizing both exposed end portions.

8 (Withdrawn). The method of claim 2 including coating said exposed portion with a chemical to functionalize said end.

9 (Withdrawn). The method of claim 8 including exposing said end portion to a chemical laden chemical including an amine or carboxylic group.

10 (Withdrawn). The method of claim 3 including exposing said functionalized end to a material that is chemically attracted to said functionalized end.

11 (Withdrawn). A method comprising:
functionalizing the opposed ends of a plurality of nanotubes;
arranging said nanotubes in parallel to one another;
coupling said functionalized ends of said nanotubes to opposed source and drain regions; and
forming a gate electrode over said nanotubes.

12 (Withdrawn). The method of claim 11 including functionalizing said opposed ends differently and using a source region which attracts one end of said nanotubes and a drain region that attracts the opposite end of said nanotubes.

13 (Withdrawn). The method of claim 11 including selectively severing the caps of each carbon nanotube and functionalizing the exposed ends of said nanotubes.

14 (Withdrawn). The method of claim 13 including providing a plurality of aligned nanotubes and covering said aligned nanotubes with a mask.

15 (Withdrawn). The method of claim 14 including selectively etching said mask to expose end portions of said nanotubes.

16 (Withdrawn). The method of claim 15 including etching to open the ends of said nanotubes and functionalizing said opened end.

17 (Currently Amended). A transistor comprising:
a source region;
a drain region;
a plurality of nanotubes extending between said source and drain regions, said nanotubes having functionalized ends; and
a gate electrode over said nanotubes.

18 (Original). The transistor of claim 17 wherein said nanotubes are parallel to one another.

19 (Original). The transistor of claim 17 wherein said nanotubes are spaced spaces equidistantly from one another.

Claim 20 (Canceled).

21 (Currently Amended). The transistor of claim 17 ~~20~~ wherein said nanotubes have opposed first functionalized ends coupled to said source region and second functionalized ends coupled to said drain region, said first functionalized ends attracted to said source region and not said drain region.

22 (Original). The transistor of claim 17 wherein said nanotubes are capless.

23 (New). A transistor comprising:
a source region;
a drain region;
a plurality of open ended nanotubes extending between said source and drain regions; and
a gate electrode over said nanotubes.

24 (New). The transistor of claim 23 wherein said nanotubes are parallel to one another.

25 (New). The transistor of claim 23 wherein said nanotubes are spaced equidistantly from one another.

26 (New). The transistor of claim 23 wherein said nanotubes have functionalized ends.

27 (New). The transistor of claim 23 wherein said nanotubes have opposed first functionalized ends coupled to said source region and second functionalized ends coupled to said drain region, said first functionalized ends attracted to said source region and not said drain region.